UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/694,536	10/28/2003	Stephen P.A. Fodor	56297-5003-20	3909

33522 7590 06/27/2006

COOLEY GODWARD LLP
THE BOWEN BUILDING
ATTN: THE PATENT GROUP
875 15TH STREET, N.W., SUITE 800
WASHINGTON, DC 20005-2221

EXAMINER	
GOLDBERG, JEANINE ANNE	
ART UNIT	**PAPER NUMBER**
1634	

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/694,536	FODOR ET AL.	
	Examiner	Art Unit	
	Jeanine A. Goldberg	1634	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 February 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-51* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-51* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/06; 9/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is in response to the papers filed October 28, 2003 and February 28, 2006. Currently, claims 26-51 are pending.

Priority

2. This application claims priority to many priority applications.

Drawings

3. The drawings are acceptable.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 33, 34, 38-39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A) Claim 33, 47 is indefinite over the recitation "each linking oligonucleotide" because "each linking oligonucleotide" lacks proper antecedent basis. Claim 26 does not require any linking oligonucleotides. Claim 26 requires probes which are complementary to a linking oligonucleotide, however does not require a linking oligonucleotide. Similarly, Claim 47 is indefinite.

B) Claim 34, 38-39, 48 are indefinite over the recitation " the linking oligonucleotide" because "the linking oligonucleotide" lacks proper antecedent basis.

Claim 34 depends on Claim 26 however, Claim 26 does not require any linking oligonucleotides. Claim 26 requires probes which are complementary to a linking oligonucleotide, however does not require a linking oligonucleotide. Similarly, Claim 48 is indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Fodor et al. (US Pat. 5,445,934, August 1995).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Fodor teaches preparing a substrate containing a plurality of sequences. Fodor teaches a substrate with a surface comprising 1000 or more groups of oligonucleotides

with different, known sequences attached to the surface in discrete known regions in an area of less than 1cm2. While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

6. Claims 26-32, 35-36, 40-46, 49-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Pirrung et al. (US Pat. 6,261,776, July 2001).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Pirrung et al teaches nucleic acids attached to an array. Pirrung specifically teaches an array of oligonucleotides, the array comprising:

a planar solid support having at least a first surface; and

a plurality of different oligonucleotides attached to the first surface of the solid support at a density exceeding 1,000 different oligonucleotides/cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a

different known location, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Pirrung Claim 5, 6). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Pirrung teaches the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Pirrung). Pirrung teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 7). Pirrung further teaches the support is glass (limitations of instant Claim 36)(see Claim 8). Pirrung teaches the substrate is silicon dioxide, a silicon containing substrate (limitations of Claim 35)(see Claim 32). Pirrung further teaches hybridization of a sample, namely a reagent to the array probe. The reagent comprises a specifically complementary oligonucleotide attached to the reagent..

7. Claims 26-32, 35-36, 40-46, 49-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Pirrung et al. (US Pat. 6,291,183, September 2001).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome

either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Pirrung et al teaches nucleic acids attached to an array. Pirrung specifically teaches an array of oligonucleotides, the array comprising:

a planar solid support having at least a first surface; and

a plurality of different oligonucleotides attached to the first surface of the solid support at a density exceeding 1,000 different oligonucleotides/cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a different known location, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Pirrung Claim 1, 5). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Pirrung teaches the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Pirrung). Pirrung teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 6). Pirrung further teaches the support is glass (limitations of instant Claim 36)(see Claim 7). Pirrung teaches the substrate is silicon dioxide, a silicon containing substrate

(limitations of Claim 35)(see Claim 30). Pirrung further teaches hybridization of a sample, namely a reagent to the array probe. The reagent comprises a specifically complementary oligonucleotide attached to the reagent..

8. Claims 26-32, 35-36, 40-46, 49-50 are rejected under 35 U.S.C. 102(e) as being anticipated by Fodor et al. (US Pat. 6,261,776, July 2001).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Fodor teaches an array of oligonucleotides, the array comprising: a planar solid support having at least a first surface; and at least 1000 different oligonucleotides attached to the first surface of the solid support in an area of less than 1 cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a different localized area, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Fodor Claim 1, 5, 6). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking

oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Fodor the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Fodor). Fodor teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 7). Fodor further teaches the support is glass (limitations of instant Claim 36)(see Claim 8). Fodor teaches the substrate is silicon dioxide, a silicon containing substrate (limitations of Claim 35)(see Claim 33). Fodor further teaches hybridization of a sample, namely a reagent to the array probe. The reagent comprises a specifically complementary oligonucleotide attached to the reagent..

9. Claims 26 is rejected under 35 U.S.C. 102(e) as being anticipated by Read et al. (US Pat. 6,403,320, June 11, 2002).

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Read teaches an apparatus for analyzing ligand-receptor binding, comprising: Read et al. teaches a substrate that comprises at least 100 different ligands, collectively

occupying less than 1 cm.sup.2, the different ligands occupying different localized areas; and a detector to detect a label bound to said ligands at said localized areas. Read further teaches the substrate has more than 1000 different ligands in 1000 different localized areas within an area less than 1 cm2. Read teaches the ligands are nucleic acids (see Claim 29 of Read).

Double Patenting

Statutory Type:

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

10. Claims 26 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1, 6, 7 of prior U.S. Patent No. 5,445,934. This is a double patenting rejection. The claims of '934 are directed to a substrate with a surface comprising 1000 or more groups of oligonucleotides with different, known sequences attached to the surface in discrete known regions in an area of less than 1cm2. While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a

linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

11. Claims 26-32, 35-36 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 5-8, 32 of prior U.S. Patent No. 6,291,183, September 2001). This is a double patenting rejection.

Pirrung et al teaches nucleic acids attached to an array. Pirrung specifically teaches an array of oligonucleotides, the array comprising:

a planar solid support having at least a first surface; and

a plurality of different oligonucleotides attached to the first surface of the solid support at a density exceeding 1,000 different oligonucleotides/cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a different known location, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Pirrung Claim 5, 6). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Pirrung teaches the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Pirrung). Pirrung teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 7). Pirrung further teaches the support is glass (limitations of instant Claim 36)(see Claim 8). Pirrung teaches the substrate is silicon dioxide, a silicon containing substrate (limitations of Claim 35)(see Claim 32).

12. Claims 26-32, 35-36 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-7, 32 of prior U.S. Patent No. 6,261,776. This is a double patenting rejection.

Pirrung et al teaches nucleic acids attached to an array. Pirrung specifically teaches an array of oligonucleotides, the array comprising:

a planar solid support having at least a first surface; and

a plurality of different oligonucleotides attached to the first surface of the solid support at a density exceeding 1,000 different oligonucleotides/cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a different known location, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Pirrung Claim 1, 5). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an

oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Pirrung teaches the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Pirrung). Pirrung teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 6). Pirrung further teaches the support is glass (limitations of instant Claim 36)(see Claim 6). Pirrung teaches the substrate is silicon dioxide, a silicon containing substrate (limitations of Claim 35)(see Claim 30).

13. Claims 26-32, 35-36 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-8, 33 of prior U.S. Patent No. 6,610482. This is a double patenting rejection.

Fodor teaches an array of oligonucleotides, the array comprising: a planar solid support having at least a first surface; and at least 1000 different oligonucleotides attached to the first surface of the solid support in an area of less than 1 cm.sup.2, wherein each of the different oligonucleotides is attached to the surface of the solid support in a different localized area, and has a different determinable sequence (limitations of instant Claim 26, 31)(see Fodor Claim 1, 5, 6). While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a

linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Fodor the nucleotides are from about 4-20 nucleotides in length, 2-100 nucleotides in length (limitations of instant Claims 27-29)(see Claims 2-4 of Fodor). Fodor teaches each of the different known locations is physically separated from each other of the known locations (limitations of instant Claim 32)(see Claim 7). Fodor further teaches the support is glass (limitations of instant Claim 36)(see Claim 8). Fodor teaches the substrate is silicon dioxide, a silicon containing substrate (limitations of Claim 35)(see Claim 33).

The issue of priority under 35 U.S.C. 102(g) and possibly 35 U.S.C. 102(f) of this single invention must be resolved.

Since the U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300), the assignee is required to state which entity is the prior inventor of the conflicting subject matter. A terminal disclaimer has no effect in this situation since the basis for refusing more than one patent is priority of invention under 35 U.S.C. 102(f) or (g) and not an extension of monopoly.

Failure to comply with this requirement will result in a holding of abandonment of this application.

Obvious Type:

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claim 26 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 29, 49 of prior U.S. Patent No. 6,403,320.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by or would have been obvious over, the reference claim(s). See e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

Although the conflicting claims are not identical, they are not patentable distinct from each other because Claim 26 of the instant application is generic to all that is recited in Claims 29, 49 of prior U.S. Patent No. 6,403,320. That is, Claim 29, 49 of prior U.S. Patent No. 6,403,32 falls entirely within the scope of Claim 26, or in other words, Claim 26 is anticipated by Claim 29, 49 of prior U.S. Patent No. 6,403,320.

Read et al. teaches a substrate that comprises at least 100 different ligands, collectively occupying less than 1 cm.sup.2, the different ligands occupying different localized areas; and a detector to detect a label bound to said ligands at said localized areas. Read further teaches the substrate has more than 1000 different ligands in 1000 different localized areas within an area less than 1 cm2. Read teaches the ligands are nucleic acids.

While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

15. Claim 26 is rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 7, 22 of prior U.S. Patent No. 6,399,365.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by or would have been obvious over, the reference claim(s). See e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

Although the conflicting claims are not identical, they are not patentable distinct from each other because Claim 26 of the instant application is generic to all that is recited in Claims 7, 22 of prior U.S. Patent No. 6,399,365. That is, Claim 7, 22 of prior U.S. Patent No. 6,399,365 falls entirely within the scope of Claim 26, or in other words, Claim 26 is anticipated by Claim 7, 22 of prior U.S. Patent No. 6,399,365.

Besemer teaches A probe array deposited on a substrate, comprising: a probe array including different probes comprising biological polymers immobilized on said substrate and having a density exceeding 100 different biological polymers per cm.sup.2, and

a bar code.

While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

16. Claims 26, 36 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2, 11, 14 of prior U.S. Patent No. 6,576,424.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by or would have been obvious over, the reference claim(s). See e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

Although the conflicting claims are not identical, they are not patentable distinct from each other because Claim 26, 36 of the instant application is generic to all that is recited in Claims 2, 11, 14 of prior U.S. Patent No. 6,576,424. That is, Claim 2, 11, 14 of prior U.S. Patent No. 6,576,424 falls entirely within the scope of Claim 26, or in other words, Claim 26 is anticipated by Claim 2, 11, 14 of prior U.S. Patent No. 6,576,424.

Fodor claims "An array comprising a solid substrate and a plurality of positionally distinguishable sequence specific polynucleotides attached to the solid substrate of at least 100 polynucleotides per cm.sup.2, at least a plurality of said polynucleotides comprising at least 25 nucleotides." Fodor further teaches the support is glass (limitations of instant Claim 36)(see Claim 11).

While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since

every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

17. Claims 26, 36-37 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 14, 24, 26-27 of prior U.S. Patent No. 6,451,536.

An obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but an examined application claim is not patentably distinct from the reference claim(s) because the examined claim is either anticipated by or would have been obvious over, the reference claim(s). See e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).

Although the conflicting claims are not identical, they are not patentable distinct from each other because Claim 26, 36-37 of the instant application is generic to all that is recited in Claims 14, 24, 26-27 of prior U.S. Patent No. 6,451,536. That is, Claim 14, 24, 26-27 of prior U.S. Patent No. 6,451,536 falls entirely within the scope of Claim 26, 36-37 or in other words, Claim 26, 36-37 are anticipated by Claim 14, 24, 26-27 of prior U.S. Patent No. 6,451,536.

Fodor claims "An array comprising a solid substrate and a plurality of positionally distinguishable polynucleotides attached to the solid substrate at a density of at least

1000 different polynucleotides per cm.sup.2 ; wherein each of the attached polynucleotides has a predetermined nucleotide sequence and at least one of the attached polynucleotides is comprised of an unnatural nucleotide or unnatural nucleotide analogue." Fodor further teaches the support is glass (limitations of instant Claim 36)(see Claim 24). Fodor teaches the solid substrate is a bead or fiber (see limitations of instant Claim 37)(Claims 26-27 of Fodor).

While the instant Claim 26 requires each probe is complementary to a linking oligonucleotide, this limitation is completely in the scope of the allowed claim since every probe is complementary to a linking oligonucleotide. A linking oligonucleotide has been interpreted to mean an oligonucleotide. The claim does to require the linking oligonucleotide, therefore the structures of the probes on the array of the instant claims and the patented claims are identical.

Conclusion

18. No claims allowable over the art.

19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Jeanine Goldberg whose telephone number is (571) 272-0743. The examiner can normally be reached Monday-Friday from 7:00 a.m. to 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla, can be reached on (571) 272-0735.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The Central Fax Number for official correspondence is (571) 273-8300.

Jeanine Goldberg
Primary Examiner
June 22, 2006